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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,391	04/11/2006	Jacques Orban	21.1179	2547
7590 07/18/2008				
Victor H Segura Schlumberger Technology Corporation 200 Gillingham Lane Sugar Land, TX 77478			EXAMINER ANDRISH, SEAN D	
			ART UNIT 3672	PAPER NUMBER
			MAIL DATE 07/18/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/560,391

Applicant(s)

ORBAN, JACQUES

Examiner

SEAN D. ANDRISH

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 22 and 24 - 32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25 - 31 is/are allowed.
- 6) ☒ Claim(s) 1 - 6, 9, 19, 20, 22, 24, and 32 is/are rejected.
- 7) ☒ Claim(s) 7, 8, 10 - 18, and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "fluid conduit" as recited in claims 22 and 32 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 - 6, 9, 19, 20, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendershot (5,041,060)

Regarding claims 1, 2, and 20, Hendershot discloses a tool comprising: a shaft comprising coaxial ring members (15 – 20); each ring member connected to an adjacent ring member by a connecting member (21) and axial supports (21); adjacent ring members are flexible in an axial plane relative to each other while remaining stiff in another axial plane offset by up to 90°; and axial supports (21) (Figs. 1 and 6; column 2, lines 27 – 64). Hendershot fails to disclose a drill bit at one end of the shaft.

Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art. *KSR International Co. v. Teleflex Inc.*, 550 U.S., 82 USPQ2d 1385 (2007). In this case, it would have been obvious to design a drilling tool combining a tool for transmitting axial load as taught by Hendershot in combination with a drill bit to efficiently drill a lateral wellbore.

Regarding claim 3, Hendershot further discloses connecting arms (21) and axial supports (21) are arranged such that the bending plane on one side of a ring member (15 - 20) is different to that on the other side (Fig. 6).

Regarding claim 4, Hendershot further discloses spacer (21), which serves as both the connecting member and axial support (Fig. 1).

Regarding claim 5, Hendershot further discloses at least two axial links (21) extending between circumferentially aligned points on adjacent ring members (15 – 20) (Fig. 1).

Regarding claim 6, Hendershot further discloses offset connection points (column 2, lines 55 – 58).

Regarding claim 9, Hendershot further discloses the connecting member (spacer 21) and axial support (30 – 33) are constituted by separate physical structures (Fig. 6). Spacer (21) functions as both an axial support and a connecting member (see rejection of claim 4) and vane elements (30 - 33) also function as both an axial support and connecting members. Therefore, the examiner considers spacer (21) to be the connecting member and vane elements (30 - 33) to be axial support structures.

Regarding claim 19, Hendershot further discloses various functional structures (15 - 20; 21; 23; 24; 30 - 33) are defined by providing cutouts in a tubular member (11) (Fig. 1).

Regarding claim 24, Hendershot further discloses a rotary motor (column 3, line 68 – column 4, line 1).

4. Claims 22 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendershot in view of Collins, Jr. (4,226,288). Hendershot discloses all of the limitations of the above claim(s) except for a fluid conduit extending along the drill shaft. Collins, Jr. teaches a fluid conduit (98) for use with a flexible shaft (Fig. 10) to provide a drill fluid supply annulus through which fluid can flow to a drill head. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the apparatus as disclosed by Hendershot with the fluid conduit as taught by Collins, Jr. to provide a drill fluid supply annulus through which fluid can flow to a drill head.

Allowable Subject Matter

5. Claims 25 – 31 are allowed.
6. Claims 7, 8, 10 - 18, and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

With regard to claims 7 and 13, the novel concept is each connection point on one ring is connected by a pair of inclined links to an adjacent ring.

Claim 8 is dependent upon claim 7 and thus would meet the novelty requirement if claim 7 were written in independent form.

Regarding claim 10, the novel subject matter is the use of inter-engaging teeth projecting from the adjacent ring members.

Claims 11 and 12 are dependent upon claim 10 and thus would meet the novelty requirement if claim 10 were written in independent form.

Claims 14 – 17 are dependent upon claim 13 and thus would meet the novelty requirement if claim 13 were written in independent form.

Claim 18 meets the novelty requirement through the use of a position of the axial support member which is positioned away from the ring members so as not to be contacted when compression is applied.

Regarding claim 21, applicant's use of concentric shafts in combination with the claimed drilling tool is considered to be a novel arrangement.

Response to Arguments

7. Applicant's arguments filed 07 April 2008 have been fully considered but they are not persuasive.

Applicant has amended independent claim 1 to include the subject matter of claim 23. Examiner replies that known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art. KSR International Co. v. Teleflex Inc., 550 U.S., 82 USPQ2d 1385 (2007). In this case, it would have been obvious to design a drilling tool combining a tool for transmitting axial load as taught by Hendershot in combination with a drill bit to efficiently drill a lateral wellbore.

8. Applicant's arguments with respect to claims 22 and 24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN D. ANDRISH whose telephone number is (571)270-3098. The examiner can normally be reached on Mon - Fri, 7:30am - 5:00pm, Alternate Fri off, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kenneth Thompson/
Primary Examiner
Art Unit 3672

SDA
7/16/2008